

DESCRIPTIONS OF TWO NEW GENERA AND SPECIES  
OF AUSTRALIAN FISHES.

By J. DOUGLAS OGILBY.

## MACRURRHYNCHUS, gen. nov.

Body elongate, compressed; head moderate, the snout somewhat pointed, conical, deep, projecting, convex above; mouth small, prominent, subinferior, with transverse cleft; lips thin; dentigerous portion of the upper jaw slightly curved, of the lower semicircular; cleft of mouth extending to beneath the middle of the eye; nostrils superior, the anterior pair rather close together, about as far from the eye as from the tip of the snout; the posterior pair more widely separated, midway between the eye and the anterior nostril; no nasal nor orbital tentacles; eyes lateral; interorbital region moderate and flat. Gill-openings reduced to a small foramen in front of the upper angle of the base of the pectoral. Teeth in a single series in both jaws, fixed, those of the upper well developed, laterally compressed, of rather unequal length; with the tips truncated and slightly bent backwards; of the lower smaller, more slender and crowded, and of equal length; upper jaw without, lower with an enormously developed tusk-like canine at the outer extremities of the series and fitting into a sheath in the upper jaw when the mouth is closed. One dorsal fin, with the outer border entire, with xii 30 rays, the spines flexible, the spinous portion about half as long as the soft, all the rays of which are unbranched, the membrane of the last ray not extending to the caudal fin: anal fin originating beneath the commencement of the soft portion of the dorsal, with 30 soft rays, the tips of which are but slightly inspissate and free: ventrals in contact at their bases, inserted in advance of the base of the pectorals, with i 3 rays: pectorals small and rounded, with 12 equally developed simple rays: caudal emarginate, with the middle ray somewhat thickened. No trace of a lateral line.

**E t y m o l o g y**:—*Macrurus*; ῥύγχος, snout; in allusion to the form of the snout, which bears a marked resemblance to that of many of the *Macruridae*, such for example as *Cælorhynchus australis*.

**D i s t r i b u t i o n**:—Western Pacific.

I would gladly have given to this genus the name *Aspidontus* of G. Cuvier, but that I am unaware whether any diagnosis of that genus was ever published. Dr. Günther apparently did not know of any such definition, and merely quotes Quoy & Gaimard for the name, making it synonymous with Rüppell's *Petroscirtes*.

MACRURRHYNCHUS MAROUBRÆ, sp.nov.

D. xii 30. A. 30.

Body of nearly equal depth throughout. Length of head  $4\frac{2}{5}$ , depth of body  $6\frac{3}{4}$  in the total length; depth of head  $1\frac{3}{4}$ , width of head 2, of the flat interorbital region  $3\frac{2}{3}$ , diameter of the eye 4 in the length of the head; snout projecting, macruriform, with the profile convex, as long as the eye, the lower surface linear and oblique, as long as the upper. The posterior angle of the mouth extends to the vertical from the middle of the eye, the naked portion of the retangular cleft on each side as long as the entire dentigerous portion and  $4\frac{1}{2}$  in the length of the head. Dorsal fin commencing immediately behind the posterior border of the preopercle, the distance between its origin and the extremity of the snout being five-sixths of the length of the head; the rays are of about the same length throughout, the middle ones being a little the longer,  $2\frac{1}{4}$  in the length of the head: the anal originates a little behind the vertical from the last spinous ray of the dorsal and is considerably lower than that fin: the ventrals are composed of slender rays, three-sevenths of the length of the head: the pectoral fins are small, rounded, and symmetrical, their length five-eighths of that of the head: caudal fin small, slightly and evenly emarginate,  $6\frac{1}{4}$  in the total length, its peduncle short and stout, with a depth of a half of that of the body.

Back olive green, lower half of the sides and the abdominal region silvery white washed with rose-colour; these tints are sharply defined, but from the lower border of the green numerous short vertical bars, as wide as the interspaces, extending downwards encroach on the sides; a narrow bright blue stripe extends backwards from the snout, above and in contact with the eye, along the side almost as far as the base of the caudal fin, about equally dividing the darker ground colour; they meet on the upper lip, where also they connect with a similar band which traverses the side of the snout, immediately below the rostral ridge, and is continued backwards below the eye to the opercles; a third stripe runs along the median line of the head to the dorsal where it is broadly forked, the branches being short; extremity of the snout orange on the lower surface; dorsal and anal fins silvery, with several broad dark vertical bands composed of numerous, closely set, blackish dots, and with a narrow marginal band of the same; ventral, pectoral, and caudal fins uniform grayish silvery, the latter with a dark band formed like those of the dorsal along the middle ray.

A single specimen was washed ashore during the month of May, on the beach at Maroubra, and was secured by Mr. Whitelegge, by whom it was presented to the Australian Museum; its length is 52 millimeters.

*Petroscirtes tapeinosoma*, Bleeker, and *P. rhinorhynchus*, Bleeker (Günther, Fische d. Sudsee, p. 195, pl. cxv. D. & E.), would belong to this genus, as well as *Aspilontus taniatus*, Quoy & Gaimard (Voy. Astrolabe, Poiss. p. 719, pl. xix. f. 4).

#### DERMATOPSIS, gen. nov.

Body elongate and compressed, especially behind; head moderate, the snout short and blunt; mouth anterior and rather wide, with moderate cleft. Premaxillaries slightly protractile, forming the entire dentigerous portion of the upper jaw; maxillary narrow in front, greatly expanded behind, extending backwards well behind the eye; anterior border of the expanded portion bent downwards

behind the premaxillary so as to form a strong, compressed, odontoid process. Nostrils lateral, widely separated, the anterior pair smaller than the posterior, surrounded by a skinny, vesicular lip. Eyes small and lateral, completely covered by similar skin. Opercles covered by a continuous skin; opercle with two strong spines, the upper of which pierces the skin. Gill-openings of moderate width, extending forwards to below the posterior border of the preopercle; isthmus wide; seven branchiostegals; no pseudo-branchiæ; gill-rakers reduced to small, serrulate tubercles. Upper jaw with a band of villiform teeth and a single small, curved, canine-like tooth on each side of the symphysis; lower jaw with a narrow band of villiform teeth anteriorly, the inner series much enlarged and continued backwards along the sides in the form of a row of widely separated, curved, canine-like teeth; vomer with an angular series of small, acute, conical teeth, the posterior tooth on each side greatly enlarged; palatine teeth in a triangular patch anteriorly, small and conical, with a single central and three posterior basal enlarged ones; pterygoids and tongue smooth. Anterior dorsal fin represented by a single spinous tubercle which does not pierce the skin; dorsal and anal fins low, separated from the caudal by a distinct interspace; ventral fins close together, inserted behind the isthmus, reduced to a slender filament, which is composed of two intimately connected rays: pectorals moderately developed, pointed, composed of twenty slender branched rays; tail diphycecal, the caudal fin narrow and pointed. Scales small, deeply embedded, widely separated; head, except the snout, with scattered scales; vertical fins for the most part covered with skin, which is scaly like the body. A series of large pores along the outer border of the snout and preorbital, and a pair of similar pores at the angle of the preopercle; lateral line inconspicuous.

Etymology:— $\delta\acute{\epsilon}\rho\mu\alpha$ , skin;  $\acute{\alpha}\psi\iota\varsigma$ , eye.

Distribution:—Coast of New South Wales.

Apparently the dorsal tubercle represents the rudiments of a first dorsal fin, and its presence would, therefore, necessitate the removal of the genus from the *Brotulide* to the *Gadide*, a course

which I am very unwilling to take since in all other characters it is a true *Brotulid*; in fact its affinity to *Dinematichthys* is so close that its disassociation with that genus would be out of the question, the dentition and the form of the maxillary being the only prominent external differential characters. I have not had access to Dr. Bleeker's paper diagnostic of *Dinematichthys*, and am, therefore, unaware as to whether or not he notices any such rudimentary first dorsal in that genus; certainly no other authors, such as Drs. Ayres, Günther, Gill, and Jordan, who have made personal examinations of the various species, have mentioned it. It would be interesting if some scientist, possessed of a series of that genus, were to investigate the matter with a view to detecting the existence of the same structure in *Dinematichthys*, since, should it be so discovered, the two genera would, I presume, have to be removed from the *Brotulidae*, or at least one of the structural characters which separate that family from the *Gobiidae* would have to be modified. Perhaps Dr. Jordan would examine one of his examples of *Dinematichthys ventralis*, and let us know whether any such rudiment is present.

DERMATOPSIS MACRODON, sp. nov.

D. 78. A. 52.

Body elongate and compressed; the tail very strongly so, its posterior portion tæniiform. Head moderate, with the cheeks and opercles rather swollen, its length  $4\frac{1}{2}$ , the depth of the body  $6\frac{2}{3}$  in the total length; depth of the head  $1\frac{3}{5}$ , width of the head  $1\frac{6}{7}$ , of the interorbital region  $5\frac{3}{4}$ , diameter of the eye 7 in the length of the head; snout blunt, its profile linear and slightly oblique, covered with a loose skin, three-fourths of a diameter longer than the eye; interorbital region convex, the supraciliary bones slightly prominent. Mouth rather large, its cleft extending to the vertical from the middle of the eye; the premaxillaries are very little protractile and form the entire dentigerous surface of the upper jaw; they are moderately broad anteriorly, but are slender and rod-like on the sides; maxillary narrow in front, greatly expanded behind, its lower border curved downwards and

forwards so as to form a strong, compressed, tooth-like process, into the curved base of which the rounded distal extremity of the premaxillary fits; behind this process the maxillary bone forms a gentle and even arc, of equal width throughout, the extremity rounded and directed slightly upwards; the maxillary extends to about one diameter behind the eye, and its length from tip to tip is  $1\frac{1}{5}$  in that of the head; the lower jaw is a little shorter than the upper, and is provided with an inferior low skinny flap, which extends entirely across its anterior border and is pectinated at the edge; the mandibular bone reaches as far back as the maxillary, along the inner surface of which it lies. The anterior nostrils are small and circular, and are situated rather close together on the edge of the maxillary and directly in front of the posterior pair, which is much larger and subtriangular, and opens immediately in advance of the eye; both are surrounded by a loose, skinny, vesicular lip, which entirely conceals the orifice. Eye very small, entirely covered by loose skin. Opercle with a pair of stout, sharp spines; the upper one running in a horizontal direction below its upper border; the lower rising from the same base is directed downwards and a little backwards; both are entirely concealed beneath the loose skin, which is continuous across the gill-covers, with the exception of the extreme tip of the upper one which just pierces the skin. Twelve rudimentary, tubercular gill-rakers, each of them crowned with a few short acute serræ, on the lower branch of the anterior arch. The band of villiform teeth on the premaxillaries is broad in front, but rapidly decreases in width on the sides, about midway along which it ceases; on each side of the symphysis anteriorly is a small, acute, curved, canine-like tooth; the mandibular band is much narrower than that of the premaxillaries, and does not extend so far laterally; there are no enlarged teeth anteriorly at the symphysis, but the inner series is considerably enlarged, conical, and acute; the lateral dentition consists of seven (or more) very strong, widely separated, caniniform teeth, which are curved backwards and inwards, the largest teeth being about the middle of the series; there is an angular ridge on the head of the

vomer, which is armed with a single series of acute, conical, separated teeth, those at the apex and along the sides being of moderate size, while the posterior tooth on each limb is similar to the largest mandibulatory teeth, and is directed backwards and slightly outwards; palatine teeth in an acutely triangular patch with the apex pointing forwards, and consisting of small, strong teeth, with a central and three basal enlarged and conical ones. The dorsal tubercle is situated immediately behind the base of the pectoral; it does not pierce the skin, but is distinctly perceptible to the finger-nail; the origin of the dorsal fin is above the middle of the pectoral, and rather more than a diameter of the eye behind the dorsal tubercle; its distance from the extremity of the snout is  $3\frac{2}{3}$  in the total length; the rays are very slender and but little branched, of almost equal length throughout, those which are inserted somewhat behind the middle of the fin being a little the longest and about one-third of the length of the head: the anal originates beneath the commencement of the middle third of the dorsal, and is in all respects similar to that fin; the distance between its origin and the tip of the snout is as long as its distance from the base of the caudal fin: ventral inserted beneath the hinder margin of the preopercle, not quite so long, the pectoral half as long as the head: caudal fin truncate at the base, not quite as long as the pectoral, with thirteen rays.

Reddish-brown, the upper surface of the head and the vertical fins rather darker; sides and lower surface of the head, the abdominal region, and the paired fins yellowish-brown.

The single example from which the diagnosis is taken was picked up dead, but in a perfectly fresh condition, on the beach at Maroubra by Mr. Whitelegge in May last, after a heavy gale, and measures 80 millimeters.

From the small size of the eyes, and the fact of their being protected by a complete covering of skin, one is led to infer that in its natural state this fish is accustomed to burrow in the sand or mud for purposes of concealment, or perhaps as a means of seeking food; a similar protective eyelid is present in *Leme*. It is probably an inhabitant of the littoral zone or, at most, of shallow water in the neighbourhood of the shore.